The Economic Consequences of Disclosure Regulation: Evidence from Online Disclosure of Corporate Governance Practices in U.S. and Canadian markets

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Abstract:
Following numerous accounting and financial scandals, there has been a trend on the part of regulatory bodies to encourage wider disclosure of corporate governance practices (CGP). In USA, the Sarbanes-Oxley Act of 2002 (SOX) requires public disclosure, via corporate investor relations websites, of specific information relating to governance practices. The Securities and Exchange Commission (SEC) approved corporate governance rules require companies with listed securities on the New York Stock Exchange to disclose corporate governance practices on their websites (NYSE, 2003). In contrast, the use of the Internet to disclose CGP is still voluntary in Canada. The Toronto Stock Exchange (TSX) requires listed companies to comply or explain with the corporate governance practices' (SCGP) guidelines only in the annual report or in the proxy circular. In this unique setting, we provide evidence that online disclosure of corporate governance practices differs between the United States (U.S.) and Canada, two otherwise similar business environments with different legal regimes. We find that the extent of corporate governance practices disclosures is higher in the U.S relative Canada suggesting that regulation force firms to maintain a higher level of transparency. Further, we find that the association between the extent of disclosure of governance practices on corporate website and stock liquidity is more significant in the US market. These findings are consistent with the externalities justifications of disclosure regulation. This study contributes to the debate on the economic consequences of disclosure regulation.

Keywords: Corporate Governance Practices, Liquidity, Content Analysis, Voluntary Disclosure, Regulation.

JEL Classifications: D82, G14

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1. Introduction

Following numerous accounting and financial scandals, there has been a trend on the part of regulatory bodies to encourage wider disclosure of corporate governance practices (CGP). In USA, the Sarbanes-Oxley Act of 2002 (SOX) requires public disclosure, via corporate investor relations websites, of specific information relating to their governance practices. The Securities and Exchange Commission (SEC) approved corporate governance rules require companies with listed securities on the New York Stock Exchange to disclose corporate governance practices on their corporate web sites (NYSE, 2003). In contrast, the use of the Internet to disclose CGP is still voluntary in Canada. The Toronto Stock Exchange (TSX) requires listed companies to disclose 'Statement of Corporate Governance Practices' (SCGP) only in the annual report or in the proxy circular.

The need for regulation to influence corporate governance disclosure is often debated in the academic as well as in the professional literatures (Watts, 1977; Forker, 1992). For instance, Jensen (1993) argues that "The legal/political/regulatory system is far too blunt an instrument to handle the problems of wasteful managerial behaviour effectively." However there is little empirical evidence on the economic consequences of disclosure regulation (Bushee and Leuz, 2005; Healy and Palepu, 2001). The relevant questions in this context are: To what extent, might regulation influence the association between online corporate governance practices disclosure and the firm's stock liquidity? According to a Global Investors Opinion Survey (McKinsey & Co., 2002) almost two thirds of investors indicate that poor quality governance is

one reason for avoiding an investment in a particular company, and 80% are willing to pay a premium for companies that are visibly well governed. Furthermore, 89% of 207 portfolio managers said they used firms' websites at least monthly, with ¾ using them at least weekly. Internet has become an essential source of information for monitoring companies and researching possible new investments.

Our investigation is pertinent to the debate surrounding the impact of disclosure regulation. Empirical studies provide mixed evidence on whether firms have reduced the amount or quality of information provided to the capital markets following the passage of the new regulation. For example, Bushee and Leuz (2005) examine the economic consequences of a regulatory change that mandated Over-The Counter Bulletin Board (OTCBB) comply reporting with 1934 Security Exchange Act. reporting requirements. Firms previously filing with the SEC have positive stock returns and permanent increases in liquidity. These results suggest that SEC regulation has significant benefits. In contrast, the findings of Bushee, Matsumoto and Miller (2004) and Altamuro, Beatty and Weber (2005) indicate that regulation has a significant negative effect. Altamuro, Beatty and Weber (2005) examine the effect of the SEC Staff Accounting Bulletin (SAB) No 101 that address concerns that firms were masking true performance by managing earnings by using accelerated revenue recognition. They find that that the association between earnings and future cash flows and between unexpected earnings and earnings announcements period returns were higher for SAB 101 firms than for unaffected firms in the preadoption period, indicating higher earnings informativeness for SAB 101 firms. Bushee, Matsumoto and Miller (2004) investigate the effect of regulation that mandates open access to information on managers' disclosure choices. They find that the proportion of firms discontinuing the use of

conference calls in the post-Reg FD period to be significantly greater for closed call firms relative to open call firms They also find a significantly greater proportion of closed call firms changing their policies regarding the timing of their calls. Results indicate that Regulation FD had a significant negative impact on managers' decisions to continue hosting conference calls and on their decisions regarding the optimal time to hold the call. My study differs from these studies in that I condition on one aspect of disclosure policy clearly impacted by the SOX (2002) regulation – the disclosure of corporate governance practices on corporate website. By including in our sample US firms directly affected by SOX (2002) disclosure rule and Canadian firms for whom the online disclosure of corporate governance practices is voluntary, we provide evidence on two otherwise similar business environments with different regulatory regimes.

Different theories have been proposed to explain how governance practices transparency influences stock liquidity. The root of this variety of views is the academic debate between the costs and benefit on voluntary disclosure (Healy and Palepu, 2001) and the economic efficiency of disclosure regulation (Leuz and Wysocki, 2008). Two theoretical approaches - the theory of firm's disclosure choices (Verrecchia, 2001) and the theory of disclosure regulation (Ross, 1979). Voluntary disclosure theory, with its root in information economics, assumes that firms can mitigate the adverse selection problem by being more forthcoming, this will level the field between uninformed investors and better informed traders (Amihud and Mendelson, 1986). Although the theory of firm's disclosure choices is the dominant perspective in voluntary disclosure studies, it has been criticized in recent financial crisis and financial scandals. The theory of disclosure regulation is an alternative perspective to the theory of firm's disclosure

choice. The theory of disclosure regulation assumes that benefits of firm's disclosure are beyond the firms itself. For instance, disclosing governance practices provide investors with a benchmark to assess others firms managements' stewardship and may lower the cost of monitoring (Dye, 1990). Therefore, it is appealing to explore which theory provides better explanations of online disclosure of governance practices. However, to the best of knowledge, this is the first study that attempt to test the theory of firm's disclosure choice and the theory of disclosure regulation simultaneously.

In the present study, we intend to fill this gap by testing these two theories simultaneously in the United States (U.S.) and Canada, two otherwise similar business environments with different legal regimes. Our objective is to investigate the relationships online disclosure of corporate governance practices disclosure and stock liquidity.

Our results show that the extent of corporate governance practices disclosures is higher in the U.S relative Canada suggesting that regulation force firms to maintain a higher level of transparency. Further, I find that the association between the extent of disclosure of governance practices on corporate website and stock liquidity is more significant in the US market. These findings are consistent with the externalities justifications of disclosure regulation.

Understanding the economic impact of mandatory and voluntary online disclosure of corporate governance practices is important from a regulatory, practitioner and academic perspective. For academics and practitioners, my study contributes to the debate on the role of regulation in improving corporate disclosure transparency by looking at one particular type of disclosure:

CGP. The results of this research also contribute to the Internet reporting literature by providing descriptive data on the information about corporate governance disclosed on corporate Web sites. Furthermore, our research makes it possible to supplement exploratory work relating to the Internet reporting by evaluating the extent of CGP disclosure. Lastly, to our knowledge, our study will be the first to explore the use of the Internet to disclose CGP in USA and in Canada.

For standard setters and regulators, the study compare the normative positions standard setters and regulators seem to have taken in the United States with the current autoregulation policy adopted thus far in Canada. In addition, insofar as the task force of the IASC recommended the establishment of a code of conduct for Internet reporting, this study will help to determine whether or not this code of conduct should include the disclosure of CGP.

The remainder of this paper is organized as follows. Section 2 describes our sample and study design. Section 3 presents the empirical results. Section 4 concludes the paper with suggestions for future research.

2. Sample selection and empirical models

2.1. Sample Selection

Critical to the power of the empirical tests in this study is sufficient cross-sectional variation in disclosure extent. To identify those industries that display a significant amount of cross-sectional variation in disclosure levels, I examined the standard deviation of disclosure scores

assigned to firms by the Standard & Poor's Transparency and Disclosure Study in 2002 for the US firms and those published in a Globe and Mail survey on corporate governance in 2002[1].

The machinery industry is in the top quartile of the distribution of the standard deviation of the Standard & Poor's Transparency and Disclosure Study and the Globe and Mail survey disclosure scores assigned to firms suggesting that this industry may provide a powerful test of the hypotheses. The final sample consists of 156 US firms and 152 Canadian drawn from industrial and commercial machinery (NAICS codes 3331-3333). One hundred percent of these firms disclose corporate governance practices under the investor relation section of their websites.

<Table 1 about here>

2.2 Development of the disclosure index and content analysis

A number of prior voluntary disclosure and Internet reporting studies employ self-constructed disclosure indices to investigate various aspects of corporate financial reporting.[2] The purpose of the disclosure index is to produce a cross-sectional ranking of disclosure levels based on the amount of CGP voluntary disclosure provided in firms' annual reports to shareholders. The index includes information identified by professionals, regulators, investors and financial analysts as useful in investment decisions. The selection of items is guided by those in the Standard & Poor's Transparency & Disclosure Study, Trites (1999) report, the Sarbanes-Oxley Act of 2002 (SOX), the New York Stock Exchange rule on disclosure of corporate governance

[1] The oil and gas, financial services and banking, and insurance industries were excluded from consideration because their unique accounting policies and practices.

[2] See Marston and Shrives [1991, 1999] for a review of accounting research employing disclosure indices.

practices, the CCBN (2002) report about best practices in online corporate governance reporting and the McKinsey & Co. Global Investors survey of investors' needs about corporate governance information. I develop a self-constructed measure as my main proxy for a firm's corporate governance practices disclosures for two reasons. First, Healy and Palepu (2001) note that self-constructed measures have increased confidence that the metric captures what it is intended to capture. Second, an independent rating of corporate governance practices disclosure (Richardson and Welker, 2001) is unavailable. Appendix A describes our disclosure index. A score of one is awarded if the firm provide the disclosure item and zero if not. Content analysis is performed at the end of 2005. Governance is total score of $\mathrm{TGPDScore}_{ij}$ which denotes the number of points awarded to the i^{th} firm for information of item j

$$\mathrm{Governance}_i = \sum_{j=1}^{25} \mathrm{TGPDScore}_{ij}$$

2.3 Stock liquidity

Liquidity, generally described as the ability to trade an asset quickly at low cost, is a critical feature of financial markets. However, liquidity is an elusive concept that is not directly observed, but rather has a number of aspects that are captured by different measures. Finance literature has proposed a broad range of measures to proxy for market liquidity, suggesting that there is no consensus about the most appropriate liquidity measure. Aitken and Forde (2003) classify various (il)liquidity measures into two broad categories: spread-based measures and trade-based measures. They find that there is little correlation between the two categories of (il)liquidity measures. This suggests the choice of measure will affect conclusions regarding the impact of liquidity on the financial markets.

As measures of illiquidity, spread-based measures reflect the round-trip trading costs of order executions. In this category, the mostly used illiquidity measure is the bid-ask spreads (*BASpd*). However, Lee (1993) finds that a significant portion of the shares, especially large trades or

block trades, execute within the bid-ask spreads, causing bid-ask spreads to overestimate the actual trading costs incurred to large trades. Lee (1993) proposes effective spread (*EffSpd*) as a more appropriate measure of trading costs. Effective spread measures the distance from the midpoint of the market at the time when the order is entered to the transaction price that is executed. This value is doubled to capture the round-trip cost of trading, i.e., $EffSpd_t = 2 \times | (B_t + A_t) / 2 - P_t |$, where B_t, A_t, and P_t denote closing bid, closing ask, and closing price at day t, respectively. By definition, effective spreads should be smaller than (or equal to) bid-ask spreads, reflecting the fact that some trades are executed within the bid-ask spreads.

The trade-based category of liquidity measures is based on the notion that higher trading activities lead to greater liquidity. In this category, Brennan, Chodia and Subrahmanyam, (1998) use trading volume (*VOL*) and Datar, Naik and Radcliffe (1998) propose turnover ratio (*TURNOVER*) to measure the degree of trading activities. The turnover ratio of a stock is defined as the number of shares traded divided by the number of shares outstanding in that stock, i.e., $TURNOVER_t = VOL_t / SharesOut_t$. *TURNOVER* has the intuitive metric of how frequent the stock changes hands.

We use in this study three measures of spread-based measures (effective spread (*EffSpd*) ; bid-ask spreads (*BASpd*)) and *TURNOVER. I* intend in following work to test if the relation is similar using trade based measures.

2.4 Empirical Models

We test the follwoing regression model:

$$Liquidity_i = \alpha_0 + \alpha_1 GOVERNANCE_i + \alpha_2 SIZE_i + \alpha_3 PRICE_i + \alpha_4 VOLUME_i + \alpha_5 VOLATILITY_i + \varepsilon_i,$$

- Liquidity measures are defined as follows: B-A Spd ($): The average daily dollar closing bid ask spread over the calculation period. Eff-Spd is the average daily effective spread, proposed by Lee (1993), over the calculation period; Turnover is the average daily turnover ratio (in %) over

the calculation period; Size is defined as the average of daily firm size (in $million) over the calculation period, which is the aggregate market value of all classes of common shares issued by firms; Price denotes the average of daily closing trading price over the calculation period; Volatility is the standard deviation of daily return (in %) over the calculation period; Volume is the total trading volume (in millions of shares) over the calculation period; Governance is our total score for online disclosure of corporate governance practices.

3. Empirical Results

Table 2 presents the descriptive statistics for our sample firms. US firms are more forthcoming regarding corporate governance practices disclosure than Canadian firms. The descriptive statistics show that US firms in our sample tend to be larger in size, have greater trading volume, and lower return volatility than Canadian firms. All variables exhibit skewness, which explains our use of rank correlations and regressions to avoid imposing linearity in our models. Table 3 shows that US firms have higher liquidity.

<Table 2 about here>

<Table 3 about here>

4.1. Pairwise Correlation

The Spearman rank correlations in Table 3 indicate a significant positive association between all liquidity measures and governance (all at p-value < 0.0001). The correlation is higher for the US

firms which seems to suggest that theory of regulation explain more the association between online disclosure of corporate governance practices and stock liquidity.

<Table 4 about here>

3.2. Regression results

We use rank regressions to evaluate regressions, replacing both the dependent and independent variables by their respective ranks. As discussed by Botosan (1997), the use of ranks assumes only a monotonic relationship. Thus, it results in a more efficient specification than ordinary least squares using untransformed data, as well as reduces the potential effects of outliers and influential observations.

Panel A of Table 4 shows the OLS regression resultants for the US and Canadian subsample. The coefficients of governance is significantly positive (p-value <0.0001 for all three liquidity measure, consistent with the theory of regulation perdition. For the Canadian sample, we find only weak evidence on the association between online disclosure of corporate governance practices and stock liquidity.

<Table 5 about here>

5. Conclusion

In this paper, we examine the association between online disclosures of corporate governance practices using two theoretical frameworks. There are reasons to believe that providing voluntarily governance practices disclosure on the Internet may not have an impact of the stock liquidity, due to lack on integrity or due to the lack on enforcement.

In this paper, we find that US firm provides more governance practices on the Internet than the Canadian firms. We also find that the association between online disclosures of corporate governance practices is significant only in the US. This evidence is consistent with positive externalities from disclosure regulation.

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Table I
Sample Selection

	U.S.	Canada
Initial Sample	246	263
Inaccessible web site	8	27
Missing accounting data	5	5
CRSP/CFMRC market data	77	79
Final Sample	156	152

Table II

Univariate Statistics for All Related Variables

The table reports univariate statistics for all related key variables for both U.S. and Canadian companies. We compute all variables, except the proxy of governance, for the 6-month period after firms' fiscal year end (2006). The measures of liquidity are defined as follows: B-A Spd ($) : The average daily dollar closing bid ask spread over the calculation period. Eff-Spd is the average daily effective spread, proposed by Lee (1993), over the caculation period; Turnover is the average daily turnover ratio (in %) over the calculation period; The other variables are defined as follows: Size: The average of daily firm size (in $million) over the calculation period, which is the aggregate market value of all classes of common shares issued by firms; Price: The average of daily closing trading price over the calculation period; Volatility: The standard deviation of daily return (in %) over the calculation period; Volume: Total trading volume (in millions of shares) over the calculation period; Governance is our proxy for company governance. For the univariate statistics we report, CV denotes the Coefficient of Variation, which is calculated as standard deviation scaled by mean. PT_25, PT_50,and PT_75 are 25th, 50th, 75th percentile respectively.

Univariate Statistics for All Related Variables

	Panel A: U.S. Companies									Panel B: Canadian Companies								
Variable	Mean	Median	STD	CV	Min	PT_25	PT_50	PT_75	Max	Mean	Median	STD	CV	Min	PT_25	PT_50	PT_75	Max
B-A Spd ($)	0.05	0.03	0.06	1.14	0.01	0.02	0.03	0.05	0.44	0.12	0.06	0.27	2.25	0.01	0.04	0.06	0.12	2.61
Eff-Spd	0.05	0.04	0.04	0.82	0.01	0.02	0.04	0.06	0.28	1.11	0.07	4.28	3.86	0.01	0.04	0.07	0.2	31.32
turnover	0.92	0.72	0.72	0.78	0.05	0.39	0.72	1.26	3.24	0.24	0.22	0.19	0.81	0	0.09	0.22	0.33	0.98
size	6503.39	514.68	26352.36	4.05	5.6	108.73	514.68	2006.98	273013.2	1770.32	231.18	5415.65	3.06	2.66	91.82	231.18	761.01	38033.23
ln(size)	6.37	6.24	2.14	0.34	1.72	4.69	6.24	7.6	12.52	5.57	5.44	1.89	0.34	0.98	4.52	5.44	6.63	10.55
price	20.89	15.5	18.74	0.9	0.46	6.65	15.5	33.05	132.22	12.89	8.03	15.64	1.21	0.03	2.37	8.03	16.73	84
ln(price)	2.57	2.74	1.11	0.43	-0.77	1.89	2.74	3.5	4.88	1.71	2.08	1.58	0.93	-3.51	0.86	2.09	2.82	4.43
volume	325.03	57.02	1102.59	3.39	0.04	11.72	57.02	203.67	10498.07	33.06	13.19	66.08	2	0.01	3.18	13.19	33.74	628.41
ln(volume)	3.85	4.04	2.11	0.55	-3.15	2.46	4.04	5.32	9.26	2.27	2.58	1.84	0.81	-4.96	1.16	2.58	3.52	6.44
volatility	2.74	2.36	1.4	0.51	0.93	1.83	2.36	3.4	9.62	2.86	2.08	2.17	0.76	0.78	1.46	2.08	3.48	14.67
Governance	18.16	19	5.08	0.28	1	15	19	21.5	25	16.55	19.5	7.62	0.46	1	12	19.5	23	25

Table III

Mean Comparison between U.S. and Canadian Companies

The table reports mean comparison for all related key variables between U.S. and Canadian companies. The variables we compare include various liquidity measures and our governance proxy. The measures of liquidity are defined as follows:B-A Spd ($) : The average daily dollar closing bid ask spread over the calculation period. Eff-Spd is the average daily effective spread, proposed by Lee (1993), over the calculation period; Turnover is the average daily turnover ratio (in %) over the calculation period; Governance is our proxy for company governance. All variables, except the proxy of governance, for the 6-month period after firms' fiscal year end (2006) . The difference of mean significantly different from zero at significance level of 1%, 5%, and 10% are denoted by ***, **, and *, respectively.

Mean Comparision between U.S. and Canadian Companies				
Variable	Mean (Canada)	Mean (U.S.)	Diff of Mean	T-Value
B-A Spd ($)	0.12	0.05	0.07***	3.03
Eff-Spd	1.11	0.05	1.06***	3.00
turnover	0.24	0.92	-0.68***	-11.3
Governance	13.94	17.7	-3.76***	-4.26

Table IV

Correlation Matrix

The table reports Pearson Correlation Matrix for all related key variables for both U.S. and Canadian companies. We compute all variables, except the proxy of governance, for the 6-month period after firms' fiscal year end (2006) . The measures of liquidity are defined as follows: B-A Spd ($) : The average daily dollar closing bid ask spread over the calculation period. Eff-Spd is the average daily effective spread, proposed by Lee (1993), over the calculation period; Turnover is the average daily turnover ratio (in %) over the calculation period; The other variables are defined as follows: Size: The average of daily firm size (in $million) over the calculation period, which is the aggregate market value of all classes of common shares issued by firms; Price: The average of daily closing trading price over the calculation period; Volatility: The standard deviation of daily return (in %) over the calculation period; Volume: Total trading volume (in millions of shares) over the calculation period; Governance is our proxy for company governance. Correlation Coefficient significantly different from zero at significance level of 1%, 5%, and 10% are denoted by ***, **, and *, respectively.

Panel A: U.S Companies

Variable	Governance	Volume	Volatility	price	Size	B-A Spd ($)	Eff-Spd	turnover
Governance	1.00							
Volume	0.13	1.00						
Volatility	-0.25***	-0.17**	1.00					
price	0.18**	0.06	-0.48***	1.00				
Size	0.11	0.86***	-0.22***	0.23***	1.00			
B-A Spd ($)	-0.15**	-0.16**	-0.05	0.14*	-0.10	1.00		
Eff-Spd	-0.13**	-0.14*	-0.13	0.40***	-0.02	0.91***	1.00	
turnover	0.22***	0.10	0.08	0.14*	-0.06	-0.24***	-0.16**	1.00

Panel A: Canadian Companies

Variable	Governance	Volume	Volatility	price	Size	B-A Spd ($)	Eff-Spd	turnover
Governance	1.00							
Volume	0.19**	1.00						
Volatility	-0.07	-0.01	1.00					
price	0.16**	0.20**	-0.45***	1.00				
Size	0.21***	0.47***	-0.18**	0.68***	1.00			
B-A Spd ($)	-0.13	-0.17**	-0.19**	0.15*	-0.05	1.00		
Eff-Spd	-0.08	-0.12	-0.11	0.07	-0.07	0.81***	1.00	
turnover	0.20**	0.53***	-0.20**	0.19**	0.21***	-0.23***	-0.28***	1.00

Table V

Results of regressing liquidity measures on governance and other control variables

The table summarizes the result of regressing four measures of liquidity on governance, controlling for other related variables. All variables, except proxy for governance, are calculated for the 6-month period after firms' fiscal year (2006) end. The liquidity measures are defined as follows: B-A Spd ($): The average daily dollar closing bid ask spread over the calculation period. Eff-Spd is the average daily effective spread, proposed by Lee (1993), over the calculation period; Turnover is the average daily turnover ratio (in %) over the calculation period; The other related variable are defined as follows: 1. Size is defined as the average of daily firm size (in $million) over the calculation period, which is the aggregate market value of all classes of common shares issued by firms. 2. Price denotes the average of daily closing trading price over the calculation period. 3. Volatility is the standard deviation of daily return (in %) over the calculation period.4. Volume is the total trading volume (in millions of shares) over the calculation period. 5.Governance is our proxy for corporate governance. The values in the first row for each explanatory variable are the coefficients obtained by OLS cross-sectional regression and the second row reports corresponding t-statistics for each coefficient. Coefficient significantly different from zero at significance level of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Adj R2 is adjusted R-squared for cross-sectional regression and No. obs is the number of firms used in cross-sectional regression.

Results of regressing liquidity measures on governance and other control variables						
	Turnover		B-A Spd ($)		Eff BA Spd	
	U.S.	Canada	U.S.	Canada	U.S.	Canada
Variables	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Intercept	0.081	0.192**	-0.017	-0.124*	-0.023	-4.484***
	(0.28)	(2.28)	(-0.71)	(-1.83)	(-1.27)	(-3.05)
Governance	0.015***	0.002**	-0.001**	-0.002	-0.007***	-0.045
	(4.9)	(2.12)	(5.9)	(-1.37)	(-0.01)	(-1.36)
Ln(Size)	-0.520***	-0.062***	0.024***	0.108***	0.017***	2.786***
	(-8.04)	(-2.86)	(4.28)	(6.26)	(4.29)	(7.38)
Ln(Price)	0.652***	0.090***	0.007	-0.061***	0.013***	-1.967***
	(9.69)	(3.41)	(1.15)	(-2.9)	(3.09)	(-4.26)
Ln(Volume)	0.498***	0.088***	-0.036***	-0.112***	-0.024***	-2.734***
	(10.64)	(6.96)	(-8.99)	(-11.07)	(-8.27)	(-12.35)
Volatility	0.106***	0.005	0.010***	0.007	0.009***	0.159
	(2.73)	(0.38)	(3.1)	(0.62)	(3.78)	(0.7)
No. Obs	149	123	149	123	149	123
Adj R^2	0.578	0.390	0.529	0.364	0.537	0.390

Appendix A
Disclosure Index

Corporate Governance Practices Disclosure items
How board assume responsibility for:
1. Strategic planning
2. Risk management
3. Succession planning
4. Communications policy
5. Internal control and information systems
6. Majority of unrelated directors
7. Disclose status of individual directors annually
8. Nominating committee
9. Nominating committee all non-management
10. Process to evaluate effectiveness
11. Orientation for new directors
12. Consider appropriateness of size of board
13. Consider director's compensation
14. Committee members are outside directors
15. Majority of committee members unrelated
16. Corporate governance committee
17. Position descriptions for board
18. Position descriptions for CEO
19. Corporate objectives approved by board
20. Board independent of management
Audit committee:
21. Committee members are outside directors
22. Responsibilities specifically defined
23. Directed communications with auditors
24. Responsibility for internal control system
25. Access to outside advisers at firm expense